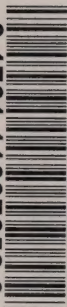


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National Energy Board

Reasons for Decision

The Manitoba Hydro-Electric Board

Application dated 27 August 1991
for permits to export short-term
firm capacity and energy and
interruptible energy

EHW-1-92

February 1993

National Energy Board

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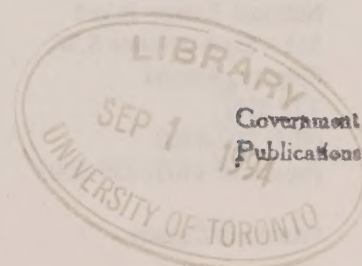
In the Matter of

The Manitoba Hydro-Electric Board

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to export short-term firm capacity and energy
and interruptible energy

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Cat. No. NE22-1/1993-5E
ISBN 0-662-20417-4

This report is published separately
in both official languages.

Copies are available on request from:

Regulatory Support Office
National Energy Board
311 - Sixth Avenue S.W.
Calgary, Alberta
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(403) 292-4800
Facsimile: (403) 292-5503

Printed in Canada

© Ministère des approvisionnements et services du
Canada 1993

Cat. No. NE22-1/1993-5F
ISBN 0-662-98157-X

Ce rapport est publié séparément
dans les deux langues officielles.

Exemplaires disponibles auprès du:

Bureau du soutien de la réglementation
Office national de l'énergie
311, sixième avenue s.-o.
Calgary (Alberta)
T2P 3H2
(403) 292-4800
Télécopieur: (403) 292-5503

Imprimé au Canada

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Abbreviations

Units of Measurement

kW.h	kilowatt hour	1 000 watt hours
GW.h	gigawatt hour	1 000 000 kW.h
TW.h	terawatt hour	1 000 GW.h
kV	kilovolt	1 000 volts
MW	megawatt	1 000 000 watts

Names

the Act	<i>National Energy Board Act</i>
the Board	National Energy Board
Electricity Regulations	The draft <i>National Energy Board Electricity Regulations</i>
Manitoba Hydro or the Applicant	The Manitoba Hydro-Electric Board
MAPP	Mid-Continent Area Power Pool
Maritime Electric	Maritime Electric Company, Limited
MEA	Manitoba Energy Authority
Memorandum of Guidance	The National Energy Board's 22 June 1990 Memorandum of Guidance to Interested Parties Concerning Full Implementation of the September 1988 Canadian Electricity Policy
MP	Minnesota Power Company
MPC	Minnkota Power Cooperative, Inc.
NSP	Northern States Power Company
OTP	Otter Tail Power Company
SaskPower	Saskatchewan Power Corporation

UPA

United Power Association

U.S.

United States of America

Recital and Intervenors

IN THE MATTER of the *National Energy Board Act* and the Regulations made thereunder; and

IN THE MATTER of an application dated 27 August 1991 by The Manitoba Hydro-Electric Board for authorization to export electricity under Part VI of the said Act, filed with the Board under file number 6200-M020-5.

EXAMINED by means of written submissions.

BEFORE:

K.W. Vollman Presiding Member

J.-G. Fredette Member

A.B. Gilmour Member

INTERVENORS:

* Maritime Electric Company, Limited

* Ontario Hydro

Saskatchewan Power Corporation

* Intervenors which presented submissions



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Preamble

This report describes the information examined by the National Energy Board ("the Board") and the conclusions reached in its assessment of the application by The Manitoba Hydro-Electric Board ("Manitoba Hydro" or "the Applicant") dated 27 August 1991 requesting the authorization of various exports of electricity. The purpose of the assessment was to determine whether to issue the requested authorizations without a public hearing, or to recommend to the Minister of Energy, Mines and Resources that the Governor in Council designate the application for licensing, which would necessitate a public hearing.

1.1 Procedures Followed in Examining the Application

As part of its examination of the application, the Board sought the views of interested parties, including the general public, which it considered, along with the application, other information that the Board required the Applicant to furnish and the Applicant's responses to the submissions received from interested parties. Board Order EHW-1-92, dated 30 April 1992, established the procedure for obtaining the views of interested parties on Manitoba Hydro's application.

The assessment procedure was in accordance with the Board's 22 June 1990 Memorandum of Guidance to Interested Parties Concerning Full Implementation of the September 1988 Canadian Electricity Policy ("Memorandum of Guidance"). The assessment also considered the Board's 28 June 1990 Memorandum of Guidance to All Companies Under the Board's Jurisdiction and Other Interested Parties regarding Public Notification of Proposed Applications for Issuance of a Certificate, an Order or Authorization to Export Pursuant to Sections 52, 58, 58.11, 58.16, 117, 119.03 and 119.08 of the National Energy Board Act.

In its examination of the application, the Board ensured that its information requirements, set out in section 119.03 of the *National Energy Board Act* ("the Act") and in the draft *National Energy Board Electricity Regulations* ("the Electricity Regulations"), attached as Appendix I to the Memorandum of Guidance, were met.

In conducting the assessment, the Board sought to avoid duplication of measures taken in respect of the export by the Applicant and by the government of Manitoba and had regard to all considerations that appeared to it to be relevant. These considerations included:

- a) the effect of the exports on provinces other than Manitoba;
- b) the impact of the exports on the environment; and
- c) whether the Applicant has:
 - (i) informed those who have declared an interest in buying electricity for consumption in Canada of the quantities and classes of service available for sale; and
 - (ii) given an opportunity to purchase electricity on terms and conditions as favourable as the terms and conditions specified in the application to those who, within a reasonable

time after being so informed, demonstrate an intention to buy electricity for consumption in Canada; and

- d) such considerations as are specified in the Electricity Regulations.

The process described in paragraph (c) above is referred to hereafter as providing fair market access.

1.2 Environmental Screening of the Proposed Exports

The Board's examination of the application included consideration of the impact of the export proposals on the environment as required under paragraph 119.06 (2) (b) of the Act. In addition, the examination incorporated a screening of the environmental effects of the proposals in accordance with those requirements of the *Environmental Assessment and Review Process Guidelines Order* which did not duplicate any portion of the Board's own regulatory process.

In respect of the assessment of the impact of the proposed exports on the environment pursuant to paragraph 119.06 (2) (b) of the Act, the Board was governed by the judgement of the Federal Court of Appeal in the case of the Attorney General of Québec v. National Energy Board dated 9 July 1991, 132 N.R.214 (F.C.A.).¹

The judgement stated that "in considering an application for leave to export electricity, the Board must be concerned about the environmental consequences, since the public interest is involved. The Board's function in this respect is in any case confirmed in several enactments. However, the only question can be as to the environmental consequences of the export, namely the consequences for the environment of "[sending] from Canada...power produced in Canada". The judgement also stated that "the factors which may be relevant in considering an application for leave to export electricity and the conditions which the Board may place on its leave clearly cannot relate to anything but the export of electricity." It further specifically stated that "it seems clear that, as it is understood in the Act with respect to electricity, export does not cover production itself."

The Board considers that it addresses the environmental impact of the sending from Canada of exports of electricity in its examination of applications by the utility concerned for certificates to construct and operate international power lines or to alter existing international power lines, which includes an examination of the impact on the environment of the operation of the line at its maximum capacity.

1.3 The Applicant's Public Notification Procedures

The Board notes that Manitoba Hydro undertook the following procedures to address the matter of public notification:

- i) The proposed exports were included in Manitoba Hydro's *Submission to the Public Utilities Board in Respect of Major Capital Projects* which was examined by the Public Utilities Board of Manitoba in a public hearing which concluded in October 1990.

(1) On 11 June 1992, Leave to Appeal the judgement of the Federal Court of Appeal was granted to the Grand Council of the Crees of Québec by the Supreme Court of Canada.

In this process two notices were published in newspapers throughout the province and served on interested parties. The first, dated 28 February 1990, announced the review and the second, dated 29 May 1990, gave details of the process. Manitoba Hydro sent an additional notice to its customers respecting the matter. Interested parties were allowed to examine Manitoba Hydro's proposals and, if they wished to take a position in respect of the proposals, could apply for intervenor status. No private individuals appeared as intervenors, however, the organizations listed below were given intervenor status:

- Consumers Association of Canada (Manitoba)/Manitoba Society of Seniors
 - Concerned Citizens of Manitoba Inc./Sierra Club of Western Canada (Manitoba)/Conservative Strategy Association of Manitoba Inc.
 - Manitoba Industrial Power Users Group
 - Northern Flood Committee
 - Community Association of South Indian Lake Inc.
 - Manitoba Keewatinowi Okimakanak Inc.
- ii) Manitoba Hydro published a notice describing the application in five newspapers in Manitoba, one in Ontario, and two in Saskatchewan between 7 September and 14 September 1991. The notice offered to respond to questions or provide additional information.
- iii) Manitoba Hydro published a notice of the application in the Canada Gazette on 14 September 1991.
- iv) Manitoba Hydro published the Notice of Application in various newspapers in accordance with the requirements of Board Order EHW-1-92.

Background

2.1 The Applicant

The Applicant, Manitoba Hydro, is a Crown Corporation established in 1949 by the Manitoba legislature. It has broad powers to provide electricity throughout the province and operates under the *Manitoba Hydro Act*, being Chapter H 190 of the Revised Statutes of Manitoba, 1987.

Manitoba Hydro owns and operates the facilities which serve all of the province of Manitoba with the exception of a portion of the city of Winnipeg which is served by the city-owned Winnipeg Hydro. Manitoba Hydro and Winnipeg Hydro operate an integrated system to supply the province from fourteen hydro plants and two thermal plants. The total capacity of the existing hydro plants will be 4 828 MW after the completion of the 1 330 MW Limestone Generating Station in the winter of 1992 and the two thermal plants have a total capacity of 369 MW. At that time, the total installed capacity will be 5 197 MW with an additional 370 MW available through diversity exchanges with Northern States Power Company ("NSP") and United Power Association ("UPA") in the U.S. In 1993 Manitoba Hydro will commence a firm export to NSP of 500 MW, under a separate licence obtained in 1985, which will extend until 2005.

In the fiscal year ending 31 March 1992 Manitoba Hydro's peak load was 3 480 MW. It supplied 14.5 billion kW.h to a total of 377 383 customers. Winnipeg Hydro served about 90 000 additional customers.

Manitoba Hydro's transmission system includes alternating current lines at voltages of 138 kV, 230 kV and 500 kV, as well as two \pm 500 kV high-voltage, direct-current transmission lines which connect northern generating stations on the Nelson River to loads in the south of the province. Manitoba Hydro has four 230 kV interconnections with Saskatchewan Power Corporation ("SaskPower") as well as two 230 kV and one 115 kV interconnections with Ontario Hydro. Interconnections with U.S. utilities include two 230 kV and one 500 kV lines. The combined capacity of interconnections with neighbouring utilities is 1 850 MW, with ties to utilities in the U.S. accounting for 1 450 MW of this capacity. An upgrade of the 500 kV international power line, scheduled for completion in 1995, was approved by the Board on 3 June 1992. This upgrade will increase the combined capacity of Manitoba Hydro's interconnections to U.S. utilities to 1 900 MW. Manitoba Hydro is a liaison member of the Mid-Continent Area Power Pool ("MAPP") of the North American Electric Reliability Council.

The map attached as Appendix I provides additional information regarding Manitoba Hydro's generation and transmission system.

2.2 Manitoba Energy Authority

Manitoba Energy Authority ("MEA") is a Crown Corporation established in 1980 by the Manitoba Legislature under the *Manitoba Energy Authority Act*, being Chapter E 112 of the Revised Statutes of Manitoba, 1987. It is, inter alia, vested with the statutory duty and power to negotiate or direct

negotiations for the sale or purchase of electrical energy. Manitoba Hydro requires the approval of MEA to import or export electricity.

2.3 The Export Customers

Potential customers for exports which might be made under the requested permits include the following five U.S. utilities.

2.3.1 Minnesota Power

Minnesota Power ("MP") is a diversified electric utility, providing electrical service in a 26 000 square-mile area of upper Minnesota and northwestern Wisconsin. In 1990, MP supplied electricity to 121 000 customers. The utility's total generation capability, as of 31 December 1990, was 1 461 MW with a generating mix of 90.3 percent coal, 8.0 percent hydro and 1.7 percent oil. MP experienced a peak load of 1 248 MW and total energy sales of 10.3 TW.h in 1990.

MP, also known as Minnesota Power & Light Company, was first interconnected with Manitoba Hydro by Manitoba Hydro's second 230 kV international power line, authorized by the Board in 1976.

2.3.2 Minnkota Power Cooperative, Inc.

Minnkota Power Cooperative, Inc. ("MPC"), a generation and transmission cooperative, provides electrical service to 77 616 customers through its 12 associated distribution cooperatives in eastern North Dakota and northwestern Minnesota. The utility's total generation capability, as of 31 December 1990, was 545 MW in summer and 547 MW in winter, with a generation mix of 92.3 percent coal and 7.7 percent oil. MPC experienced a peak load of 504 MW and total energy sales of 3.6 TW.h in 1990.

MPC is a long-term customer of Manitoba Hydro. Transactions with Manitoba Hydro have been taking place since the construction of Manitoba Hydro's first 230 kV international power line which was authorized by the Board in 1970.

2.3.3 Northern States Power Company

NSP is a diversified investor-owned utility which serves customers in Minnesota, Wisconsin, North Dakota, South Dakota and Michigan's Upper Peninsula. NSP generates, transmits and distributes electricity to 1 318 935 customers, distributes natural gas to 358 155 customers and supplies telephone service in Minot, North Dakota. The utility's total generation capability, as of 31 December 1990, was 6 813 MW in the summer and 7 159 MW in the winter with a generating mix of 55.0 percent coal, 22.6 percent nuclear, 16.5 percent oil, 3.8 percent hydro and 2.1 percent other. In 1990, NSP experienced a summer peak load of 6 733 MW with a net system energy requirement of approximately 38.7 TW.h and purchased 6.4 TW.h of electricity.

NSP is also a long-term customer of Manitoba Hydro. It has been transacting business with Manitoba Hydro since the construction of Manitoba Hydro's first 230 kV international power line. Manitoba Hydro's 500 kV international power line, authorized by the Board in 1977, provided a second interconnection between the two utilities.

2.3.4 Otter Tail Power Company

Otter Tail Power Company ("OTP") is an investor-owned operating electric utility which serves an estimated population of 250 000 in 459 towns and adjacent rural areas and farms in eastern North Dakota, western Minnesota and northwestern South Dakota. The utility's total generation capability, as of 31 December 1990, was 606 MW in summer and 632 MW in winter with a generation mix of 88.8 percent coal, 10.5 percent oil and 0.7 percent hydro. OTP experienced a peak load of 562 MW in 1990 with total energy sales of 3.4 TW.h.

OTP, another long-term customer, has also been transacting business with Manitoba Hydro since the construction of Manitoba Hydro's first 230 kV international power line.

2.3.5 United Power Association

United Power Association ("UPA") is a generation and transmission cooperative supplying wholesale power to fifteen member distribution cooperatives, which in turn serve approximately 234 000 member-consumers located in Minnesota and Wisconsin. The utility's total generating capability, as of 31 December 1990, was 754 MW in the summer and 779 MW in the winter with a generation mix of 91.4 percent coal and 8.6 percent gas. UPA experienced a summer peak load of 624 MW in 1990. Energy sales to members and non-members were 2.9 TW.h and 1.6 TW.h respectively.

UPA signed agreements, including an interconnection agreement, with Manitoba Hydro in November 1989. UPA has entered into contracts with NSP and MP which allow it to engage in transactions with Manitoba Hydro to be delivered over that utility's second 230 kV international power line and its 500 kV international power line.

Requested Authorizations

Manitoba Hydro requested the following two permits:

Permit 1 - to export up to 1 900 MW of short-term firm capacity and energy as sale and exchange transfers for a 30-year term, from 1 November 1992 through 31 October 2022.¹

This permit would replace existing Licence EL-102 which was to expire on 31 October 1992.¹

Permit 2 - to export up to 16 650 GW.h of interruptible energy, less the amount of energy exported under Permit 1, in any consecutive 12-month period for a 30-year term, from 1 November 1992 through 31 October 2022.¹

In addition to exports of interruptible energy, Manitoba Hydro requested that this permit cover carrier transfers, adjustment transfers, unscheduled loop flows and storage transfer of firm energy. The permit would replace existing Licences EL-100, EL-101 and EL-103 which were to expire on 31 October 1992.¹

Transactions, as yet unspecified, to be exported under these permits would be made under terms and conditions outlined in the service schedules of one of the following interconnection or coordination agreements:

- 1) 500 kV Coordination Agreement between NSP and Manitoba Hydro dated 1 February 1991
 - respecting the Winnipeg-Minneapolis-St. Paul 500 kV international power line
- 2) Tri-Party Coordination Agreement between NSP and UPA and Manitoba Hydro dated 1 February 1991
 - respecting the upgraded 500 kV international power line
- 3) Manitoba-United States Winnipeg-Grand Forks 230 kV Interconnection Coordinating Agreement between Manitoba Hydro, MPC, NSP and OTP dated 16 January 1969
 - respecting the Winnipeg-Grand Forks 230 kV international power line
- 4) Interconnection, Facilities and Coordinating Agreement Respecting Ridgeway-Shannon 230 kV Interconnection between MP, MPC and Manitoba Hydro dated 30 December 1974

(1) In the application, Manitoba Hydro requested that the term of the permits start on 1 November 1992. However, the Board was unable to complete its examination of the application prior to that date and it extended existing Licences EL-100, EL-101, EL-102 and EL-103 to 30 April 1993.

- 5) Coordinating Agreement between UPA and Manitoba Hydro dated 7 August 1984
- respecting the Ridgeway-Shannon 230 kV international power line

The services covered by these interconnection agreements are summarized in Appendix III.

The requested limits of 1 900 MW and 16 650 GW.h are equal to the full transfer capability of all of Manitoba Hydro's international power lines, including the capability of its upgraded 500 kV interconnection, operated at 100 percent capacity factor. The upgrade of the 500 kV interconnection, currently scheduled to take place in 1995, will increase the transfer capability of Manitoba Hydro's international power lines to 1 900 MW from its current value of 1 450 MW. Manitoba Hydro requested these limits because it expects that, under high river flow conditions, it may require these limits to dispose of its surplus energy in the most beneficial manner. Also, Manitoba Hydro may, in the future, arrange exports which are not covered by the terms and conditions in the service schedules of the agreements listed above. In such cases, Manitoba Hydro will seek separate approvals from the Board but those exports would be made within the limits requested at this time.

As noted above, Manitoba Hydro requested that the types of transactions which could take place under Permit 2 include carrier transfers, adjustment transfers, unscheduled loop flows and storage transfers of firm energy. Carrier transfers were included because there may be times in which Manitoba Hydro will want to wheel power for the U.S. utilities. Adjustment transfers were included to provide for the adjustment of energy account balances between Manitoba Hydro and the U.S. utilities. Unscheduled loop flows were included because Manitoba Hydro operates as part of an interconnected grid including the U.S. utilities and there are unavoidable, unscheduled power transfers in both directions between it and the U.S. utilities which must be accounted for in day-to-day operations. Finally, storage transfers of firm energy were included to make it possible for Manitoba Hydro to import and, in effect, store in its reservoirs energy produced by the U.S. utilities during the night when those utilities have lower cost thermal units available. The energy would be returned during the day when the higher cost thermal units of the U.S. utilities would normally be operating. These classes of transactions were previously authorized under Licences EL-100, EL-101 and EL-103.

Information Supplied by the Applicant

4.1 Provincial and U.S. Approvals related to the Exports

4.1.1 Provincial Approvals

Manitoba Hydro indicated that it normally requires MEA and provincial cabinet approval for all electricity exports. However, the permits requested in this application are for short-term transactions and MEA has delegated to Manitoba Hydro authority to conduct such transactions. Also, Manitoba Hydro indicated that provincial cabinet approval had been obtained previously for Manitoba Hydro to enter into all the agreements which would govern exports to be made under the requested permits.

4.1.2 U.S. Approvals

Manitoba Hydro stated that it was not aware of any government approvals required by the U.S. utilities to import the electricity that might be exported by Manitoba Hydro under the requested permits.

4.2 The Impact of the Exports on the Environment

This section describes only that part of the information supplied by Manitoba Hydro regarding the impact of the exports on the environment which is relevant to the sending from Canada of the electricity involved in the exports, in accordance with the judgement of the Federal Court of Appeal outlined in section 1.2 of these Reasons for Decision.

Manitoba Hydro stated that it is not aware of any impact on the environment of the sending from Canada of the electricity involved in the proposed exports over its international power lines which may not have been considered at the time of approval by the Board of those international power lines.

Finally, Manitoba Hydro indicated that it complies with all current provincial and federal legislation in the operation and maintenance of its power system.

4.3 The Effect of the Exports on Provinces other than Manitoba

Manitoba Hydro indicated that it is not aware of any negative impacts which might result from the proposed exports in the provinces of Ontario or Saskatchewan. Also, it stated that its interconnection agreements with Ontario Hydro and SaskPower each require that the power systems of the two parties be operated in parallel within operating limitations established through the respective Operating Committees. Through these Operating Committees, Manitoba Hydro is obligated to take immediate action towards removing any negative impact imposed on the other utilities' systems by an action taken by Manitoba Hydro.

Also, Manitoba Hydro indicated that its studies show a very positive improvement in the reliability of the Manitoba Hydro/SaskPower/Ontario Hydro interconnected systems during periods when Manitoba Hydro is exporting to the U.S.

4.4 Fair Market Access

This section summarizes information supplied by Manitoba Hydro in its application and in response to information requests from the Board and from Ontario Hydro. Fair market access was also dealt with in the submissions of Maritime Electric and Ontario Hydro to the Board and in Manitoba Hydro's response to those submissions. The submissions and Manitoba Hydro's response are described in Chapter 5 of these Reasons for Decision.

4.4.1 Information Supplied in the Application

In letters to Ontario Hydro and SaskPower dated 25 July 1991, Manitoba Hydro stated that it intended to provide fair market access to exports to be made under the requested permits by offering neighbouring Canadian utilities the right to intercept such exports under similar terms and conditions. Also, the letters indicated that, in the future, Manitoba Hydro may enter into specific contractual arrangements with U.S. utilities not covered by the terms of its interconnection agreements with them. These arrangements would be offered to the Canadian utilities at the same time as the Board's approval of the arrangements is sought. Manitoba Hydro also stated that its forecast of the power and energy quantities available for export under its interconnection agreements would be forwarded to the other utilities annually for planning purposes. The letters asked Ontario Hydro and SaskPower to indicate their concurrence with this procedure.

Ontario Hydro, in its letter of 11 September 1991, indicated its concurrence with the procedure outlined by Manitoba Hydro.

SaskPower, in its letter of 28 January 1992, stated that it would agree to a procedure which would ensure that power and energy intended for export to the U.S. will first be offered to SaskPower on the same terms and conditions, including price, as those offered to the U.S. utilities. While SaskPower accepted the proposal to forward the annual forecast of power and energy proposed for export, it stated that more frequent information exchanges would also be required in accordance with existing agreements and practices.

4.4.2 Information Supplied in Subsequent Correspondence

In response to an information request from the Board regarding its offers to Ontario Hydro and SaskPower of the right to intercept exports, Manitoba Hydro subsequently explained that when it has surplus energy, it does not intend to negotiate a definite contract with a single-export market which could then be offered to neighbouring Canadian utilities. Instead, it proposes to provide fair market access by making known, to all interested utilities, the quantity of energy available and when this energy will be available and, in this way, provide Canadian utilities with an opportunity to purchase the energy under equivalent terms and conditions.

To reconcile this process with its offer of interception rights in its 25 July 1991 letters to Ontario Hydro and SaskPower, Manitoba Hydro explained to the Board that it considered that interception of potential exports by Canadian utilities could take place in its negotiation process provided that the net benefit to Manitoba Hydro with the interception would equal the export benefit. Interception could occur either during the negotiations or during an export contract period. Interception during negotiations would take place where a Canadian utility negotiates a transaction with Manitoba Hydro which would provide a benefit to Manitoba Hydro at least equal to that offered by a U.S. utility for the same energy. In such a case the Canadian utility would be sold the energy and would, in effect,

intercept an export to the U.S. Interception during an export contract period could occur if the export contract provisions allow Manitoba Hydro to curtail the export. Manitoba Hydro also explained that, by stating that interception could take place under similar terms and conditions, it meant that interception could occur under different negotiated conditions at the same price, if no additional cost would be incurred by Manitoba Hydro in meeting the modified terms and conditions. This meant that Manitoba Hydro is willing to negotiate transactions with Canadian utilities that are similar to export opportunities but would better meet the different requirements of the Canadian utilities.

4.4.3 Manitoba Hydro's Proposed Negotiation Process

4.4.3.1 Determination of Surplus

In information provided during the Board's assessment of Manitoba Hydro's 14 March 1991 application for permits to authorize various diversity exports, Manitoba Hydro described its procedure for determining the quantity of energy it will have available for sale each year through the negotiation process. Depending on the results of the negotiation process this surplus energy could be exported as increased diversity exports or under the short-term firm and interruptible permits requested in the 27 August 1991 application. At present, Manitoba Hydro carries out detailed analyses twice a year to determine the amount of its surplus energy. These occur in April, as required under existing licences issued by the Board, and in July/August for its Integrated Financial Forecast. Additional quantities of surplus energy may become available in the short term due to such factors as changing load conditions, precipitation and generator availability but these can not be predicted with any degree of confidence.

4.4.3.2 The Negotiation Process

Manitoba Hydro indicated that, as the first step in its proposed negotiation process, it would provide an annual forecast of its surplus power and energy quantities to Ontario Hydro and SaskPower as well as to neighbouring U.S. utilities. This is expected to initiate discussions if a Canadian utility is interested in arranging a purchase. Manitoba Hydro considers that, if no interest is expressed at this stage and the power and energy is sold to an export market, it would have provided fair market access to the Canadian utilities.

Over the course of the year, Manitoba Hydro would update the information on the availability of surplus energy in a manner similar to what it does today. To illustrate its current practice, Manitoba Hydro stated that it provides updated information to Ontario Hydro as follows:

- On an annual basis, Manitoba Hydro provides written notice of the estimated amounts of surplus energy.
- On a semi-annual basis, at Operating Committee meetings, updated information is provided on Manitoba Hydro's estimated surplus energy.
- On a shorter term, Manitoba Hydro and Ontario Hydro communicate at least once or twice a week, but generally on a daily basis, to exchange information on the availability of surplus energy.

4.4.3.3 Evaluation of Offers

Manitoba Hydro expects that, as needs become better defined, particular utilities would indicate definite quantities of energy required and offer prices. Manitoba Hydro would judge which offer would provide it with the greatest benefit and would make a commitment based on that judgement. When an export commitment is made, Manitoba Hydro would be prepared to provide information to the Board and, for specific transactions, to neighbouring Canadian utilities that would allow the monitoring of its provision of fair market access. Should the Board require an explanation of its choice of commitment, Manitoba Hydro would provide the necessary data. Manitoba Hydro indicated that situations might arise in which a block of energy might be sold to a U.S. utility at a lower rate than a previously-committed transaction with a neighbouring Canadian utility but the rate for the U.S. utility would not be lower than the rate the Canadian utility had offered for the same block of energy, under the same terms and conditions.

Manitoba Hydro indicated that, in the case where a commitment was made in favour of an export customer, the terms and conditions of the commitment would determine under which of the requested permits the electricity would be exported.

4.4.3.4 Monitoring of Fair Market Access

With respect to the monitoring of its fair market access procedures, Manitoba Hydro indicated that the interconnection agreements contain general pre-arranged terms and conditions under which transactions may occur between Manitoba Hydro and the U.S. utilities. Specific contractual arrangements based on those general terms and conditions are developed for transactions with U.S. utilities when commitments are made. While Manitoba Hydro did not object to filing a copy of these specific contractual arrangements with the Board, it considered that the approval of these arrangements, because it carries with it the responsibility to ensure that the terms and conditions therein are met, could not be delegated to the Board.

Manitoba Hydro indicated that, should it be found that Manitoba Hydro had discriminated against a neighbouring Canadian utility in favour of an export customer, it would compensate that utility for the difference between the offer by the Canadian utility and the actual selling price.

In response to an information request from Ontario Hydro concerning the way in which Manitoba Hydro's proposed negotiation process would meet the requirements of fair market access as given in "The Fair Market Access Guideline", Annex 2 of the Canadian Electricity Policy of September 1988 (see Appendix II) and in the Electricity Regulations, Manitoba Hydro stated, in part, that it considered that its obligation was "to ensure that Canadian utilities have an opportunity to negotiate terms and conditions (including price) no less favourable than those being offered to export customers"(emphasis added)."

In its response to Ontario Hydro, Manitoba Hydro also indicated that it would accept interception of interruptible exports by a neighbouring Canadian utility if that utility needed the energy to prevent an interruption of service to its domestic load.

4.4.4 Duration of Individual Contracts under the Requested Permits

When asked for the maximum duration of exports to be made under the requested permit to export short-term capacity and energy, Manitoba Hydro replied that short-term power is usually sold for

periods of a day, a week, a month or six months and transactions could be arranged up to three years in advance. In addition, Manitoba Hydro provided a listing of the service schedules in its interconnection agreements with U.S. utilities which would cover the exports to be made under each of the requested permits. In general, the listing grouped all of the schedules which deal with the sale of firm power, regardless of duration, under the short-term firm permit and the schedules covering the sale of energy under the interruptible permit. A number of the service schedules which would apply to transactions under the requested permits state that the duration of specific transactions will be negotiated. In those cases where a duration is specified, most are for six months while the longest is 12 months.

4.5 Term of the Requested Permits

Manitoba Hydro requested that the permits have terms of 30 years. When asked to justify this request, it indicated that the permits would include the authorization of the transfer of energy which flows naturally as a consequence of being interconnected with U.S. utilities. Also, the interconnection with U.S. utilities involves commitments which end in 2019 and Manitoba Hydro considers it necessary to ensure that the interconnection will remain in order to allow those commitments to be met for that period.

In response to questions concerning the extent to which the effect of the proposed exports on neighbouring provinces had been examined over the requested 30-year term, Manitoba Hydro provided the following information. Reliability studies concerning the impact of the operation of its 500 kV international power line after the planned upgrade of that line is completed, carried out by Manitoba Hydro in cooperation with its neighbouring utilities, examined the forecast winter peak conditions for the year 1996. Also, Manitoba Hydro indicated that it had not carried out any studies to show whether the operation of its system, when exporting at the limits of the requested permits, would have a negative impact on neighbouring utilities over the requested term of the permits, nor has it discussed this subject with neighbouring utilities. Manitoba Hydro considered that its normal operating practices, which include coordination with other utilities at the operating level, will either prevent negative impacts from occurring or adequately mitigate any which might occur.

Interventions, Submissions and the Applicant's Responses

5.1 Interventions

The Board received three interventions in respect of the application, all from other electric utilities. The Board placed all three of the intervenors on its final list of interested parties but only two, Ontario Hydro and Maritime Electric, went on to present submissions.

Maritime Electric's intervention stated that it could be affected by the way in which the Board applied the requirement for the provision of fair market access. It stated that it would address, in its submission, the question of whether Manitoba Hydro has afforded fair market access.

Ontario Hydro's intervention stated that it had an interest in the proceedings because it could be affected by the granting of the application. It indicated that it might make a submission concerning fair market access and any other matter which became apparent upon a complete examination of the application.

SaskPower's intervention stated that it had an interest in the application because it was interconnected with Manitoba Hydro. It wished to be kept informed of all matters associated with the assessment of the application and have the opportunity to make further submissions.

5.2 The Submission of Maritime Electric

In its submission, dated 20 July 1992, Maritime Electric asserted that Manitoba Hydro had not yet demonstrated compliance with the requirements of the Act concerning the provision of fair market access and, in fact, could not do so because the principal terms of specific transactions - price, quantity and delivery period - had not yet been negotiated.

The submission indicated that Manitoba Hydro appeared to have dealt with fair market access in its 25 July 1991 letters to Ontario Hydro and SaskPower, in which it undertook to offer those utilities the right to intercept future exports under similar terms and conditions. Judging from subsequent correspondence between Manitoba Hydro and Ontario Hydro, Maritime Electric considered that, in fact, Manitoba Hydro intended to advise Canadians of the energy it has for sale and to give interested Canadians an opportunity to negotiate terms and conditions (including price) no less favourable than those being offered to export customers. Maritime Electric considered that this would not ensure that Canadians would, in fact, have an opportunity to purchase electricity on terms and conditions as favourable as those under which Manitoba Hydro would be exporting. Maritime Electric agreed to some extent with Manitoba Hydro's argument that, if it were to disclose its export price and to provide a final opportunity to Canadians to accept or reject the proposed export under the same terms and conditions, the result would be an interception process and not a negotiation process. Nevertheless, Maritime Electric considered that Canadians should, at some point, be provided with actual export prices and given the opportunity to negotiate purchases at those prices.

Maritime Electric considered that, to properly implement fair market access, an exporting utility should keep neighbouring Canadians aware of services that it is considering offering in the U.S. Withholding pricing information which could compromise the exporter's bargaining position or its competitive position would be reasonable. Neighbouring Canadian utilities interested in a similar service should indicate their interest so that the exporter could make a reasonable judgement about the quantities that it might have to provide to meet both export commitments and the requirements of neighbouring Canadians.

As the exporter gets closer to finalizing the export deal it should release more information to the neighbouring Canadians who should indicate whether they have a continuing interest. Once the export price is set, it should be disclosed and neighbouring Canadians would have a duty to respond as quickly as possible in the circumstances and the response, in terms of quantity and so on, if the intent is to buy, should be consistent with the earlier expressions of intent.

Maritime Electric considered that, in providing fair market access, the exporter should ensure that neighbouring Canadian utilities interested in buying services similar in quantity and quality to services to be exported are given an opportunity to do so on terms and conditions as favourable as the export terms. In Maritime Electric's opinion, Manitoba Hydro had not done so and did not intend to do so. Maritime Electric considered that, unless Manitoba Hydro modified its position, the Board ought to recommend to the Minister that the application be designated for licensing, which would necessitate a public hearing.

5.3 The Submission of Ontario Hydro

Ontario Hydro's submission utilized the description of fair market access in "The Fair Market Access Guideline", Annex 2 of the Canadian Electricity Policy of September 1988 (See Appendix II). Ontario Hydro indicated that it interpreted paragraph 5 of the Guideline to imply that Canadian purchasers be offered terms and conditions, including price, comparable to those being offered to export customers.

Ontario Hydro then observed that Manitoba Hydro had indicated that it would provide fair market access by means of a negotiation process. Ontario Hydro was willing to consider methodologies other than interception provided that they are fair, practical and consistent with fair market access. In order for Manitoba Hydro's negotiation process to meet these requirements, Ontario Hydro considered that Manitoba Hydro should adhere to the following principles:

- i) Manitoba Hydro must provide sufficient time for negotiations to take place. Negotiations should be concluded no later than the day before the electricity involved must be delivered.
- ii) If negotiations are not completed on the day before surplus electricity becomes available or if surplus electricity is only offered for sale on the day it becomes available and there is not sufficient time for negotiations, Manitoba Hydro should post a price for potential purchasers.
- iii) Ontario Hydro considered that, if Canadian purchasers continue to express interest during a negotiation process, Manitoba Hydro must keep them informed of the class of service and terms and conditions (except price) being offered to export customers and give them the opportunity to negotiate the purchase of a similar class of service. At the end of negotiations, if an agreement has not been reached with a Canadian purchaser, Ontario Hydro submitted that the Canadian purchaser must be given a final opportunity to purchase under terms and conditions (including price) no less favourable than those of the export.

- iv) To permit monitoring of fair market access compliance, Manitoba Hydro should file with the Board daily records of its export transactions which include the price, the amount of capacity and/or energy, the duration of the sale, the date the commitment was made and any special provisions such as the requirement to return energy.

In conclusion, Ontario Hydro submitted that the permits requested by Manitoba Hydro should be conditioned to reflect the above requirements. Ontario Hydro submitted that clarification is required with regard to the application of fair market access but considered that its concerns could be resolved without a licence proceeding involving a public hearing.

After Ontario Hydro's submission was filed with the Board, Manitoba Hydro requested additional information from Ontario Hydro prior to making its response to Ontario Hydro's submission. The information summarized below was included in Ontario Hydro's reply to Manitoba Hydro's information request.

First, Ontario Hydro indicated that it considered that the interpretation of fair market access given in its submission to the Board would not be challenged as creating Canadian preference under The Canada-U.S. Free Trade Agreement. In any event, Ontario Hydro had only made submissions concerning the implementation of the fair market access concept formulated by the Board and it would be up to the federal government to provide support for the concept in the event of such a challenge.

To illustrate their disagreement over whether the use of interception would necessarily result in a loss to the exporter, Ontario Hydro and Manitoba Hydro both presented their benefit calculations concerning a past interception of an export by Ontario Hydro. Manitoba Hydro considered that it had suffered a loss in revenue due to the interception while Ontario Hydro considered that there had been no such loss.

Finally, to explain how it could make purchases to serve "domestic need" while simultaneously exporting, Ontario Hydro indicated that it considered that "purchase for resale" occurred only when the sale commitment was made conditional on the purchase agreement. Where such has been the case for Ontario Hydro's purchases from Manitoba Hydro, Manitoba Hydro has been notified accordingly. Ontario Hydro then described several situations in which simultaneous purchases and sales could occur, including the case in which its West System was purchasing from Manitoba Hydro for local use because transmission limitations prevent the West System from obtaining enough electricity to supply all of its needs from the Ontario Hydro East System. At the same time the East System could be exporting because it has more surplus capacity than it could transmit to the West system.

5.4 Manitoba Hydro's Response to the Maritime Electric and Ontario Hydro Submissions

In a combined response to the submissions of Maritime Electric and Ontario Hydro, Manitoba Hydro first indicated that, while it agreed with the principle of fair market access, it did not agree that interception should be used to provide it. It argued that interception could result in a loss to the Canadian exporter. Manitoba Hydro considered that allowing interception reduced its flexibility in negotiating export sale prices. Furthermore, Manitoba Hydro considered that interception interferes with an exporter's ability to obtain the maximum benefit from its available resources. Also, Manitoba Hydro noted that interception could result in a Canadian utility ending up with a class of service better

suiting to the original export customer. Manitoba Hydro preferred to explore opportunities that are specific to each potential customer and was prepared to defend the final disposition of its energy on the grounds of providing the maximum benefit to Manitoba consumers.

Manitoba Hydro considered that fair market access should ensure that Canadian utilities have an opportunity to negotiate suitable agreements. It proposed an unfettered negotiation process which would advise as to the amount of surplus energy available, identify the maximum benefit and provide appropriate sharing of benefits arising from the sale and purchase of energy. It considered that any process which forces specific action by either party involved, or imposes time constraints on either party is a distortion of the negotiation process and may create inequalities.

Concerning Ontario Hydro's conditions for defining an acceptable negotiation process as described above, Manitoba Hydro agreed that the negotiation process should conclude no later than the day before the energy involved is to become available. It also agreed that, if it has not committed energy and/or capacity on or before the day before that on which it becomes available, it would post a price for potential buyers. This would be consistent with its current practices. However, Manitoba Hydro considered that giving interested Canadian customers a final opportunity to purchase under terms and conditions, including price, no less favourable than that of a potential export could result in the interception of the export by a Canadian utility if its negotiations with Manitoba Hydro had not produced an agreement. With such a provision, Manitoba Hydro claimed that prospective Canadian purchasers would have no incentive to bargain seriously, knowing that they could resort to interception of the export in the end. Regarding the supply of information concerning its export sales, Manitoba Hydro was willing to make information available to neighbouring Canadian utilities, in a manner similar to its present practice, to satisfy them as to the conditions of export of energy which they were interested in purchasing. Manitoba Hydro was also willing to work with neighbouring Canadian utilities to define the required information. It recognized that the Board might require additional information for monitoring exports and to provide an opinion concerning the provision of fair market access should a complaint be made.

Manitoba Hydro objected to the submission of Maritime Electric on the grounds that the process outlined by Maritime Electric could result in interception by Canadian utilities if negotiations with Manitoba Hydro were not concluded to their satisfaction.

Manitoba Hydro then explained that its proposed negotiation process would be similar to the process currently in use in which Manitoba Hydro advises all accessible utilities as early as possible of the availability of power and energy. It is always willing to negotiate with all utilities and, all else being equal, Canadian utilities are given priority. The major difference would be that, under the proposed negotiation process, neighbouring Canadian utilities would be required to respond and participate seriously in discussions if interested in purchasing available resources.

Finally, Manitoba Hydro offered to provide neighbouring Canadian utilities with reasonable compensation for any proven violation of fair market access on its part. However, it noted, it has not been offered similar compensation for any losses on its part due to interception of its exports.

Views of the Board

In its assessment of the application, the Board may only consider those matters outlined in section 1.1 of these Reasons for Decision. The Board's views on those matters are given below.

6.1 Provincial and U.S. Approvals related to the Exports

The Board is satisfied that all necessary provincial and U.S. approvals required to make exports under the requested permits have been obtained.

6.2 The Impact of the Exports on the Environment

The judgement of the Federal Court of Appeal, described in section 1.2 of these Reasons for Decision, indicated that the Board, in respect of the impact of an export of electricity on the environment, may consider only the impact of the sending from Canada of the electricity involved. Consequently, the Board did not consider the environmental impact of the generation by Manitoba Hydro of the electricity which might be exported under the requested permits, but had regard only to the impact on the environment of the transmission, or the sending from Canada, of that electricity.

The Board notes that the sending from Canada of the electricity which might be exported under the requested permits may occur over any or all of Manitoba Hydro's international power lines. The Board considered the environmental effects of the operation of the international power lines at full load when it issued to Manitoba Hydro its Certificates of Public Convenience and Necessity to construct and operate its 230 kV and 500 kV international power lines. The Board also considered the environmental effects of the upgrade of Manitoba Hydro's 500 kV international power line, scheduled for completion in 1995, when it issued its approval on 3 June 1992. Also, the Board did not receive any new information on environmental effects related to the sending of electricity from Canada by Manitoba Hydro in this assessment.

The Board has considered the potential environmental effects of sending electricity over Manitoba Hydro's international power lines for the full range of possible interruptible and/or firm exports requested in this application. The Board is satisfied that the proposed exports would be transmitted over facilities for which Manitoba Hydro has obtained all the necessary provincial and federal permits or certificates and that the facilities would be operated within the applicable provincial and federal standards and guidelines.

In conclusion, the Board is satisfied that any potentially adverse effects on the environment of the sending of the electricity which might be exported under the requested permits would be insignificant or mitigable with known technology.

6.3 The Effect of the Exports on Provinces other than Manitoba

The Board is aware that, in connection with the recently approved upgrade of the terminal facilities of Manitoba Hydro's 500 kV international power line at Dorsey station, studies were carried out by

Manitoba Hydro in cooperation with Ontario Hydro and SaskPower which dealt with the effect on adjacent power systems of exports by Manitoba Hydro at levels up to 1 900 MW, the combined maximum transfer capability of all its international power lines after the upgrade is completed. Manitoba Hydro indicated that these studies examined the forecast winter peak conditions for the year 1996. Information submitted by Manitoba Hydro concerning these studies showed that, under the conditions assumed for the study, neither Ontario Hydro nor SaskPower had any concern over exports of up to 1 900 MW.

Furthermore, Manitoba Hydro's existing interconnection agreements with Ontario Hydro and SaskPower require immediate corrective action on its part in the event that any unforeseen contingency results in a negative impact on those utilities' systems.

The Board is, therefore, satisfied that the sending from Canada of the electricity which might be exported under the requested permits would not have any unacceptable effect on the reliability and stability of operation of the power systems in adjacent provinces under both the conditions which exist now and those which will exist after the planned upgrade of Manitoba Hydro's 500 kV international power line in 1995.

6.4 Fair Market Access

The Board notes that Manitoba Hydro requested authorizations to make exports on terms and conditions that are, for the most part, unknown at this time. This raises the following concerns related to fair market access:

- How can the Board ensure that the fair market access requirements will be satisfied under these conditions?
- Should the Board require prior approval of specific contracts to be executed under the requested permits?
- Should there be a maximum duration for individual export contracts under the requested permits?
- How does fair market access apply to transactions other than sale transfers, such as carrier transfers, etc?

6.4.1 Ensuring that Fair Market Access Requirements Will Be Satisfied

With respect to fair market access, Manitoba Hydro objected to the current procedure which allows the interception of exports by Canadian purchasers, indicated that it considered that its obligation under fair market access is "to ensure an "opportunity to negotiate terms and conditions (including price) no less favourable than those being offered to export customers" (emphasis added)" and submitted that it would evaluate offers from Canadian and U.S. purchasers on the basis of the net benefit to Manitoba Hydro and make commitments based on that judgement.

The Board agrees that the requirement to provide fair market access does not oblige Manitoba Hydro to carry out any specific procedure such as allowing interception of its proposed exports. In addition, while the Board concurs with Manitoba Hydro's statement that it considers that its obligation under fair market access is to ensure an opportunity to negotiate terms and conditions (including price) no less favourable than those being offered to export customers, it notes that such an opportunity must

include "... an opportunity to purchase electricity on terms and conditions as favourable as the terms and conditions specified in the application" as required by the Act.

Fair market access is meant to afford to Canadian purchasers who have demonstrated an intention to buy electricity for consumption in Canada an opportunity to purchase electricity on terms and conditions, including price, as favourable as those offered to an export customer. Moreover, the Board believes that fair market access places an onus on both the exporter and prospective Canadian purchasers to bargain in good faith and work out for themselves mutually acceptable and appropriate fair market access procedures. In this respect, the Board notes that Manitoba Hydro has reached agreement with Ontario Hydro on some of the fair market access procedures that would apply to proposed exports under the requested authorizations.

The requested authorizations would allow exports in the future on terms and conditions that are, for the most part, unknown at the time of the application. The Board recognizes Manitoba Hydro's need for such authorizations to permit it to engage in the short-term electricity export trade and to coordinate the operation of its power system with those of interconnected U.S. utilities, as it does with neighbouring Canadian systems, for maximum economic and reliability benefits. However, before the Board can grant the requested authorizations, it must satisfy itself that Canadians will be given an opportunity to purchase electricity on terms and conditions (including price) as favourable as the terms and conditions of any proposed exports that might be negotiated by Manitoba Hydro before any exports are made. Therefore, to ensure compliance with the Act, the Board will condition any permits it may issue to ensure that prospective Canadian purchasers will be provided fair market access.

Finally, the Board is of the view that the way in which Manitoba Hydro proposes to evaluate offers from prospective Canadian purchasers for its surplus energy is not a matter with which the Board needs to concern itself in this process. The Board recognizes, however, that it may need to address such matters if and when it receives a complaint from a Canadian purchaser alleging that it was not provided fair market access. To provide Canadians with a mechanism for such complaints and to permit them to determine whether they have been provided fair market access, the Board will condition any permits it may issue to require Manitoba Hydro to provide information on its export transactions as follows:

- for exports of less than one month in duration (i.e. on an hourly, daily or weekly basis), due to the limited time available to Canadians to negotiate a similar purchase, Manitoba Hydro will be required to inform accessible Canadian purchasers, on request, of the terms and conditions, including price, under which a particular export was made; and
- for exports lasting a month or more, Manitoba Hydro will be required to file a copy of the associated specific contractual arrangements with the Board within fifteen consecutive days after the contract is executed and, upon request, serve a copy thereof on the requesting accessible Canadian purchaser.

Finally, the Board has noted Maritime Electric's statement that Manitoba Hydro has not yet provided fair market access to any power and energy that might be exported under the requested permits and its concern that the negotiation procedure described by Manitoba Hydro would not, in fact, provide fair market access in the future. The Board considers that the conditions described above, which it will

impose in any permits it may issue, adequately address Maritime Electric's concerns. The Board also considers that those conditions address the concerns raised by Ontario Hydro.

6.4.2 Prior Approval of Specific Export Contracts

Although Manitoba Hydro stated that it considered that it could not delegate to the Board the approval of contracts for which it was responsible, the Board notes that Manitoba Hydro's existing short-term firm export Licence EL-102 contains a condition requiring prior Board approval of specific contracts to be executed under the licence.

The Board notes also that, under Licence EL-102, Manitoba Hydro is permitted to engage in export transactions of up to six months in duration. This licence, which was issued following a public hearing, also contains a condition requiring prior Board approval of exports greater than one month in duration and requiring Manitoba Hydro to first offer the proposed exports to Canadians. Thus, under Manitoba Hydro's existing short-term firm licence the actual terms and conditions of longer specific export contracts are examined by the Board on a case-by-case basis, taking into consideration matters under the Board's jurisdiction.

The Board recognizes, however, that the Act now provides that, in the case of permits, the Board may only impose conditions related to the specific matters set out in the Electricity Regulations, which do not include prior Board approval of export contracts. The Board can impose conditions requiring prior Board approval of export contracts only when it issues licences, following designation of an application by the Governor in Council and a public hearing.

Consequently, because conditions requiring prior Board approval of contracts cannot be imposed in export permits, the Board must consider whether to set an upper limit on the duration of contracts which may be entered into under any permits it may issue - recognizing that contracts of shorter duration will not be subject to Board scrutiny.

6.4.3 Maximum Duration for Individual Export Contracts under the Requested Permits

The Board notes that if it were to issue permits for the duration requested by Manitoba Hydro (i.e. 30 years) and place no restriction on the duration of specific export contracts negotiated under such permits, it would be possible for Manitoba Hydro to enter into 30-year contracts which would not be subject to any Board scrutiny except in the event of complaints arising from **after-the-fact** monitoring of Manitoba Hydro's fair market access compliance by accessible Canadian purchasers.

In view of the fact that Manitoba Hydro requested authorization to engage in exports of short-term interruptible and firm transactions, the task which faces the Board in the context of this application is to ensure that only short-term interruptible and firm transactions are authorized by any permits it may issue. Accordingly, there is a need for the Board to establish what it means by "short-term".

The Board notes that the negotiation process proposed by Manitoba Hydro for disposing of its surplus energy incorporates an annual cycle initiated, each year, by Manitoba Hydro's surplus energy forecast. The Board notes also that, when asked what would be the maximum duration of individual exports under the requested short-term firm permit, Manitoba Hydro replied that short-term power is usually sold for periods of a day, a week, a month or six months and is arranged not more than three years in advance. Finally, the Board notes that, in the service schedules in its interconnection agreements with

U.S. utilities, the duration of transactions is no longer than 12 months, in those cases where the duration is specified.

From these observations, the Board expects that the majority of transactions which Manitoba Hydro would make under the requested permits would be of an operational nature and be no longer than one year in duration. However, in addition to the flexibility required to make these short-term transactions which are associated with maximizing the benefits of co-ordinated system operations, the Board recognizes Manitoba Hydro's need for the flexibility to make longer term transactions based on near-future system planning considerations. The U.S. utilities usually enter into such transactions to ensure continuity of secure, reliable and economic electric service to their customers in the immediate planning horizon. Major breakdowns of generating facilities, delays in bringing new generating units into service and unexpected increases in demand or reduced effectiveness of demand-side management programs are just a few examples of events that would result in unexpected capacity deficiencies in the U.S., giving rise to imports from Manitoba Hydro. Such situations can arise quickly, and the decisions required to conclude transaction agreements must be made rapidly.

Although Manitoba Hydro did not explicitly propose a maximum duration for individual export contracts under the requested permits, it did indicate that such contracts would be arranged not more than three years in advance. Manitoba Hydro is, in effect, seeking authorizations to cover individual contracts for the export of specified blocks of electricity which may take place in each year for a period of up to three years. In the Board's view, limiting the duration of export contracts to a maximum of three years would permit Manitoba Hydro to engage in an export trade involving transactions of an operational and immediate planning nature and provide it with the flexibility to take full advantage of its interconnection agreements with U.S. utilities.

The Board is of the view that a duration of three years for specific export contracts to be made under any permits it may issue is reasonable. Exports longer than three years in duration should be made under separate authorizations from the Board.

6.4.4 Transactions other than Sale Transfers

The Board notes that Manitoba Hydro has requested authorization to make carrier transfers and equichange, adjustment and storage transfers in conjunction with U.S. utilities under the requested permits.

In the case of carrier transfers, transactions are limited by the interconnection agreements to transactions involving only the parties to those agreements. For those cases where Manitoba Hydro makes carrier transfers for the purpose of exporting electricity from one part of its system to be wheeled through the U.S. and simultaneously imported into another part of the Manitoba Hydro system, the net export is zero. The Board is of the view that, for such carrier transfers, the public interest is not detrimentally affected. However, there could be cases where the electricity would be generated in the U.S., wheeled through the Manitoba Hydro system and delivered back to the U.S. The Board considers that the regulatory scheme of the Act applicable to the exportation of electricity cannot usefully be applied to such carrier transfers of electricity not produced in Canada. While it is impossible to determine with certainty that the electricity delivered back to the U.S. purchasers in such cases will not contain some electricity generated in Canada, the Board is prepared to deem all of the electricity wheeled back to the U.S. to have been produced in the U.S. and considers, therefore, that there would be no net sales to which a Canadian purchaser could claim fair market access.

Consequently, Manitoba Hydro will not require authorization under any permits the Board may issue to wheel through its system electricity generated by U.S. utilities for delivery to other U.S. utilities as the Board is satisfied that the nature and circumstances of such transactions need not be subject to the Board's current export regulation. The Board is of the view, however, that Manitoba Hydro should keep the Board informed of such carrier transfer transactions.

Regarding the provision of fair market access for transactions and services such as unscheduled loop flows and equichange, adjustment and storage transfers the Board is of the view that there would be no net exports involved because they are the consequences of interconnected system operation. Consequently, the public interest would not be detrimentally affected by such transactions.

6.5 Term of the Requested Permits

Manitoba Hydro asked that the requested permits have 30-year terms. In response to questions concerning the extent to which the effect of the proposed exports on provinces other than Manitoba had been examined over this term, Manitoba Hydro indicated that reliability studies concerning the impact of the operation of its 500 kV international power line after the upgrade of that line, planned for completion in 1995, examined only the forecast winter peak conditions for the year 1996. Moreover, Manitoba Hydro indicated that it had not carried out any other studies to show whether the operation of its system, when exporting at the limits of the requested permits, would have a negative impact on neighbouring utilities beyond 1996, nor has it discussed this subject with neighbouring utilities. Furthermore, the information provided to the Board does not consider the possibility of changes to Manitoba Hydro's international power lines, other than the upgrade of the 500 kV international power line, within the period covered by the requested term. The Board can not assume that there will be no changes to Manitoba Hydro's international power lines between the planned upgrade of the 500 kV line in 1995 and 2022, the end of the requested term. Consequently, the Board can not be satisfied that exports which might be made under the requested permits would not have any unacceptable impact, such as an unacceptable effect on the reliability of service in provinces other than Manitoba, over the whole of the requested 30-year term.

The Board notes that Manitoba Hydro did indicate that its interconnection with U.S. utilities involves commitments which end in 2019 and Manitoba Hydro considered it necessary to ensure that the interconnection will remain so that those commitments can be met for that period. However, Manitoba Hydro did not provide any information to show that these commitments could not be met if the requested 30-year term was not granted. The Board notes that the interconnections and the associated commitments have been in place for some time and Manitoba Hydro has been able to meet these commitments under Licences EL-100, EL-101, EL-102 and EL-103, which have 12-year terms and which will be replaced by any permits the Board may issue.

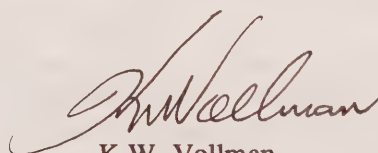
Based on these considerations, the Board considers that a 12-year term for any permits it may issue would be suitable.

Disposition

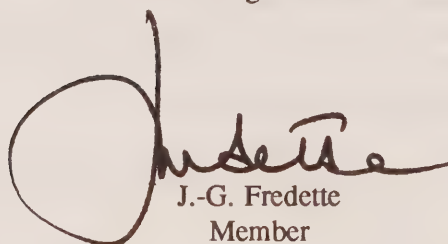
After considering the information provided by the Applicant and the interventions and submissions of interested parties, the Board is of the view that a public hearing is neither required nor necessary and has decided not to recommend to the Minister that the Governor in Council designate Manitoba Hydro's application for licensing as it has not identified any issues which would benefit from further public review.

The Board, having satisfied itself that, for a period of 12 years, the exports would not have any unacceptable effect on provinces other than Manitoba, that the impact of the exports on the environment would be insignificant or mitigable with known technology, that the Applicant will provide fair market access to exports to be made under the requested permits, and having regard to all other considerations that appear to it to be relevant, is prepared to issue to Manitoba Hydro permits granting the requested authorizations for a period of 12 years instead of the requested 30 years. Terms and conditions applicable to each permit are set out in Appendices IV and V. The term of the permits will commence on 1 May 1993 instead of 1 November 1992 as requested in the application. The quantity of energy which may be exported under the permits takes into account existing export permits and licences. Finally, Manitoba Hydro is requested to supply to the Board, by the 15th day after the end of each month during the term of the permits, a report setting forth the quantities of power and energy exported or imported and the resulting revenue for each type of transaction authorized under each permit.

The foregoing constitutes our Reasons for Decision in the present application of Manitoba Hydro pursuant to Part VI of the *National Energy Board Act*.



K.W. Vollman
Presiding Member



J.-G. Fredette
Member

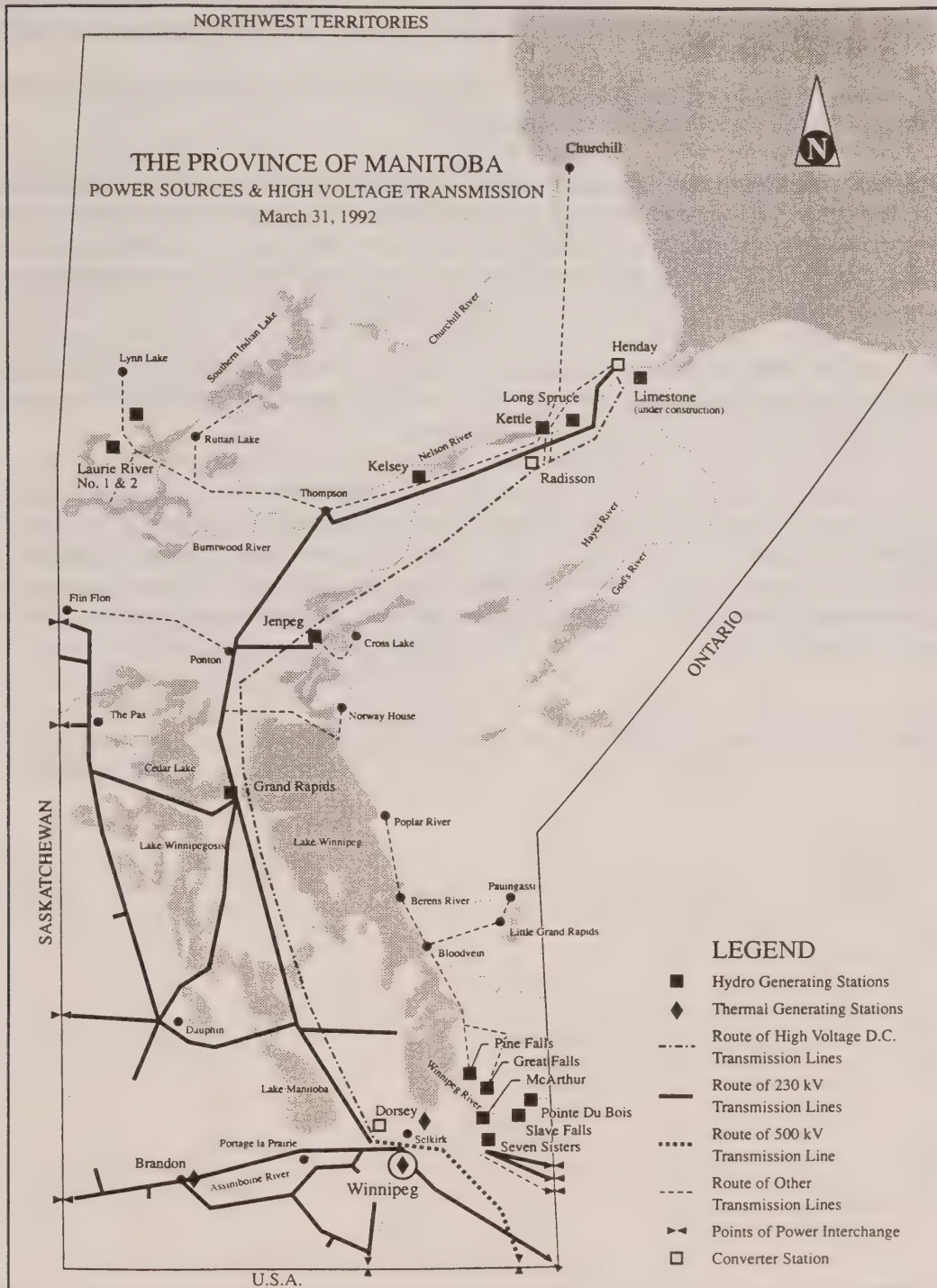


A.B. Gilmour
Member

Calgary, Alberta
February 1993

The Province of Manitoba-Power Sources & High Voltage Transmission

31 March 1992



The Fair Market Access Guideline¹

1. Export applications may be designated for licensing if Canadians wishing to purchase electricity to satisfy the requirements of their own domestic service area (as opposed to purchases for re-sale outside of their own domestic service area) have not been given fair market access to the electricity that the exporter is making available to external markets.
2. Fair market access is a reciprocal concept: it entails certain responsibilities for the Canadian buyer and certain responsibilities for the exporter.
3. Exporters must ensure that potential Canadian buyers are kept informed about the electricity available for sale to external markets. Canadian buyers should be advised of the classes of service available, the quantities available and the period for which the quantities are available; however, while negotiations with export customers are underway, price information may remain privileged.
4. The Canadian buyer must then demonstrate a serious intent to purchase by, for example, telling the exporter the class of service it is interested in buying, the quantities it is interested in buying, and the period of the proposed purchase.
5. When a Canadian purchaser (i) is interested in buying electricity to satisfy the requirements of *its own domestic service area*, and (ii) has demonstrated a willingness to negotiate the purchase of a class of service that is similar to that being considered by an exporter for sale to an export customer, then the exporter should ensure that the Canadian has an opportunity to negotiate terms and conditions (including price) no less favourable than those being offered to export customers.

(1) Annex 2 to the September 1988 Canadian Electricity Policy.

**Services Covered by Manitoba Hydro's
Interconnection Agreements with U.S. Utilities**

The following classes of service are covered by one or more of the interconnection and coordination agreements listed in Chapter 3.

a) Services Provided Under the Short-Term Firm Capacity and Energy Permit

Participation Power Interchange (from a specific unit)
Seasonal Participation Power Interchange (from last base-load unit installed)
Tertiary Energy Interchange
Peaking Power Interchange
Short Term Power Interchange
System Participation Power Interchange (not from any specific unit)
Spinning Reserve
Wheeling Services and Losses
Firm Power Interchange

b) Services Provided Under the Interruptible Energy Permit

Emergency and Scheduled Outage Energy Interchange
Operating Reserve Interchange
Economy Energy Interchange
Tertiary Energy Interchange
Operational Control Energy Interchange
Interruptible Load Replacement Energy
Interchange Energy
System Participation Power Interchange
Wheeling Services and Losses

**Terms and Conditions of Export Permit EPE-45
Export of Short-Term Firm Capacity and Energy**

IN THE MATTER OF section 119.03 of Division II of Part VI of the *National Energy Board Act*; and

IN THE MATTER OF an application by The Manitoba Hydro-Electric Board ("Manitoba Hydro") for authorization to export electricity, filed with the National Energy Board ("the Board") under file no. 6200-M020-5.

BEFORE the Board on 10 February 1993.

WHEREAS, in the application dated 27 August 1991, Manitoba Hydro requested an authorization to export short-term firm capacity and energy to various U.S. utilities at points on the international boundary between Canada and the United States of America;

AND WHEREAS Manitoba Hydro on 14 September 1991 published in the Canada Gazette a notice of the application;

AND WHEREAS the Board has considered any comments on or objections to the application;

AND WHEREAS the Board is satisfied that parties interested in buying electricity for consumption in Canada will be given fair market access to any electricity proposed for export under this permit;

AND WHEREAS the Board has determined that the effect of the exports on provinces other than Manitoba would be insignificant;

AND WHEREAS, pursuant to the *Environmental Assessment and Review Process Guidelines Order* ("EARP Guidelines Order"), the Board has performed an environmental screening and has considered the information submitted by Manitoba Hydro;

AND WHEREAS the Board has determined, pursuant to paragraph 12 (c) of the EARP Guidelines Order, that the potentially adverse environmental effects, including the social effects directly related to those environmental effects, which may be caused by the export are insignificant or mitigable with known technology;

AND WHEREAS the Board has determined, after considering the information provided by Manitoba Hydro and the interventions and submissions of interested parties, that further public review of the application is not warranted;

IT IS ORDERED THAT Manitoba Hydro be and is hereby authorized to export firm power and energy at points on the international boundary between Canada and the United States of America, subject to the following terms and conditions:

1. The term of this permit shall commence on 1 May 1993 and shall end on 31 October 2005.
2. The classes of transfer authorized hereunder shall be the sale, exchange and storage transfer and carrier transfer of short-term firm capacity and energy.
3. The power and energy to be exported hereunder may be transmitted over any international power lines for which the Board has issued a certificate of public convenience and necessity or permit.
4. The quantity of power that may be exported hereunder shall not exceed 1 900 MW.
5. The quantity of energy that may be exported hereunder shall not exceed 16 650 GW.h in any consecutive 12-month period less the amount of energy exported under Permits EPE-33, EPE-34, EPE-35 and EPE-46 and also Licences EL-170 and EL-174.
6. The exports made hereunder shall be in accordance with the following agreements:
 - (i) 500 kV Coordination Agreement between Northern States Power Company and Manitoba Hydro, dated 1 February 1991; or
 - (ii) Tri-Party Coordination Agreement between Northern States Power Company and United Power Association and Manitoba Hydro, dated 1 February 1991; or
 - (iii) Winnipeg-Grand Forks 230 kV Interconnection Coordinating Agreement between Manitoba Hydro, Minnkota Power Cooperative, Inc., Northern States Power Company and Otter Tail Power Company, dated 16 January 1969; or
 - (iv) Interconnection, Facilities and Coordinating Agreement Respecting Ridgeway-Shannon 230 kV Interconnection between Minnesota Power, Minnkota Power Cooperative, Inc. and Manitoba Hydro, dated 30 December 1974; or
 - (v) Coordinating Agreement between United Power Association and Manitoba Hydro, dated 7 August 1984.
7. Any amendment or addendum to, termination or substitution of the agreements referred to in Condition 6 shall not be effective until approved by the Board. Contracts for the export of electricity from Canada shall not be considered to be such amendments, addenda, terminations or substitutions.
8. With respect to any single contract for the export of electricity from Canada which is entered into by Manitoba Hydro subsequent to the date of this permit, except for storage transfers, the maximum duration of this permit shall not exceed three years from the date exports commence.

9. Manitoba Hydro shall not export power and energy hereunder without first:
- (i) informing those who have declared an interest in buying electricity for consumption in Canada of the quantities and classes of service available for sale; and
 - (ii) giving an opportunity to purchase electricity on terms and conditions, including price, as favourable as the terms and conditions which apply to the proposed exports to those who, within a reasonable time after being so informed, demonstrate an intention to buy electricity for consumption in Canada.
10. Manitoba Hydro shall:
- (i) for exports of less than one month duration, subsequent to the commencement of the export, inform all accessible Canadian purchasers, on request, of the terms and conditions, including price, under which a particular export was made.
 - (ii) for exports of one month or more in duration, file with the Board, within fifteen consecutive days of execution, a copy of any specific contractual arrangements associated with the export and, upon request, serve a copy thereof on the requesting accessible Canadian purchaser.

**Terms and Conditions of Export Permit EPE-46
Export of Interruptible Energy**

IN THE MATTER OF section 119.03 of Division II of Part VI of the *National Energy Board Act*; and

IN THE MATTER OF an application by The Manitoba Hydro-Electric Board ("Manitoba Hydro") for authorization to export electricity, filed with the National Energy Board ("the Board") under file no. 6200-M020-5.

BEFORE the Board on 10 February 1993.

WHEREAS, in the application dated 27 August 1991, Manitoba Hydro requested an authorization to export interruptible energy to various U.S. utilities at points on the international boundary between Canada and the United States of America;

AND WHEREAS Manitoba Hydro on 14 September 1991 published in the Canada Gazette a notice of the application;

AND WHEREAS the Board has considered any comments on or objections to the application;

AND WHEREAS the Board is satisfied that parties interested in buying electricity for consumption in Canada will be given fair market access to any electricity proposed for export under this permit;

AND WHEREAS the Board has determined that the effect of the exports on provinces other than Manitoba would be insignificant;

AND WHEREAS, pursuant to the *Environmental Assessment and Review Process Guidelines Order* ("EARP Guidelines Order"), the Board has performed an environmental screening and has considered the information submitted by Manitoba Hydro;

AND WHEREAS the Board has determined, pursuant to paragraph 12 (c) of the EARP Guidelines Order, that the potentially adverse environmental effects, including the social effects directly related to those environmental effects, which may be caused by the export are insignificant or mitigable with known technology;

AND WHEREAS the Board has determined, after considering the information provided by Manitoba Hydro and the interventions and submissions of interested parties, that further public review of the application is not warranted;

IT IS ORDERED THAT Manitoba Hydro be and is hereby authorized to export interruptible energy at points on the international boundary between Canada and the United States of America, subject to the following terms and conditions;

1. The term of this permit shall commence on 1 May 1993 and shall end on 31 October 2005.
2. The classes of transfer authorized hereunder shall be the sale, exchange, storage, adjustment and carrier transfer of interruptible energy and unscheduled loop flows.
3. The energy to be exported hereunder may be transmitted over any international power lines for which the Board has issued a certificate of public convenience and necessity or permit.
4. The quantity of energy that may be exported hereunder shall not exceed 16 650 GW.h in any consecutive 12-month period less the amount of energy exported under Permits EPE-33, EPE-34, EPE-35 and EPE-45 and also Licences EL-170 and EL-174.
5. The exports made hereunder shall be in accordance with the following agreements:
 - (i) 500 kV Coordination Agreement between Northern States Power Company and Manitoba Hydro, dated 1 February 1991; or
 - (ii) Tri-Party Coordination Agreement between Northern States Power Company and United Power Association and Manitoba Hydro, dated 1 February 1991; or
 - (iii) Winnipeg-Grand Forks 230 kV Interconnection Coordinating Agreement between Manitoba Hydro, Minnkota Power Cooperative, Inc., Northern States Power Company and Otter Tail Power Company, dated 16 January 1969; or
 - (iv) Interconnection, Facilities and Coordinating Agreement Respecting Ridgeway-Shannon 230 kV Interconnection between Minnesota Power, Minnkota Power Cooperative, Inc. and Manitoba Hydro, dated 30 December 1974; or
 - (v) Coordinating Agreement between United Power Association and Manitoba Hydro, dated 7 August 1984.
6. Any amendment or addendum to, termination or substitution of the agreements referred to in Condition 5 shall not be effective until approved by the Board. Contracts for the export of electricity from Canada shall not be considered to be such amendments, addenda, terminations or substitutions.
7. With respect to any single contract for the export of electricity which is entered into by Manitoba Hydro subsequent to the date of this permit, except for storage transfers, the maximum duration of this permit shall not exceed three years from the date exports commence.
8. Manitoba Hydro shall not export power and energy hereunder without first:
 - (i) informing those who have declared an interest in buying electricity for consumption in Canada of the quantities and classes of service available for sale; and

- (ii) giving an opportunity to purchase electricity on terms and conditions, including price, as favourable as the terms and conditions which apply to the proposed exports to those who, within a reasonable time after being so informed, demonstrate an intention to buy electricity for consumption in Canada.

9. Manitoba Hydro shall:

- (i) for exports of less than one month duration, subsequent to the commencement of the export, inform all accessible Canadian purchasers, on request, of the terms and conditions, including price, under which a particular export was made.
- (ii) for exports of one month or more in duration, file with the Board, within fifteen consecutive days of execution, a copy of any specific contractual arrangements associated with the export and, upon request, serve a copy thereof on the requesting accessible Canadian purchaser.

